

Name: _____

Date: _____

FOIL when $A \neq 1$ SLTN (version 113)

FOIL the expressions shown below:

1. $(3x - 8)(-5x + 6)$

$$\begin{aligned} & (3)(-5)x^2 + (3)(6)x + (-8)(-5)x + (-8)(6) \\ & (-15)x^2 + (18)x + (40)x + (-48) \\ & -15x^2 + 58x - 48 \end{aligned}$$

2. $(2x - 3)(-7x - 5)$

$$\begin{aligned} & (2)(-7)x^2 + (2)(-5)x + (-3)(-7)x + (-3)(-5) \\ & (-14)x^2 + (-10)x + (21)x + (15) \\ & -14x^2 + 11x + 15 \end{aligned}$$

3. $(3x - 8)(-3x + 3)$

$$\begin{aligned} & (3)(-3)x^2 + (3)(3)x + (-8)(-3)x + (-8)(3) \\ & (-9)x^2 + (9)x + (24)x + (-24) \\ & -9x^2 + 33x - 24 \end{aligned}$$

4. $(2x - 3)(3x + 4)$

$$\begin{aligned} & (2)(3)x^2 + (2)(4)x + (-3)(3)x + (-3)(4) \\ & (6)x^2 + (8)x + (-9)x + (-12) \\ & 6x^2 - x - 12 \end{aligned}$$

5. $(3x + 3)(3x - 8)$

$$\begin{aligned} & (3)(3)x^2 + (3)(-8)x + (3)(3)x + (3)(-8) \\ & (9)x^2 + (-24)x + (9)x + (-24) \\ & 9x^2 - 15x - 24 \end{aligned}$$

FOIL the expressions shown below:

6. $(-8x + 3)(-8x + 3)$

$$\begin{aligned} &(-8)(-8)x^2 + (-8)(3)x + (3)(-8)x + (3)(3) \\ &(64)x^2 + (-24)x + (-24)x + (9) \\ &64x^2 - 48x + 9 \end{aligned}$$

7. $(2x + 5)(-3x - 4)$

$$\begin{aligned} &(2)(-3)x^2 + (2)(-4)x + (5)(-3)x + (5)(-4) \\ &(-6)x^2 + (-8)x + (-15)x + (-20) \\ &-6x^2 - 23x - 20 \end{aligned}$$

8. $(3x + 5)(8x + 2)$

$$\begin{aligned} &(3)(8)x^2 + (3)(2)x + (5)(8)x + (5)(2) \\ &(24)x^2 + (6)x + (40)x + (10) \\ &24x^2 + 46x + 10 \end{aligned}$$

9. $(-3x + 4)(8x - 6)$

$$\begin{aligned} &(-3)(8)x^2 + (-3)(-6)x + (4)(8)x + (4)(-6) \\ &(-24)x^2 + (18)x + (32)x + (-24) \\ &-24x^2 + 50x - 24 \end{aligned}$$

10. $(-5x - 9)(-9x + 6)$

$$\begin{aligned} &(-5)(-9)x^2 + (-5)(6)x + (-9)(-9)x + (-9)(6) \\ &(45)x^2 + (-30)x + (81)x + (-54) \\ &45x^2 + 51x - 54 \end{aligned}$$